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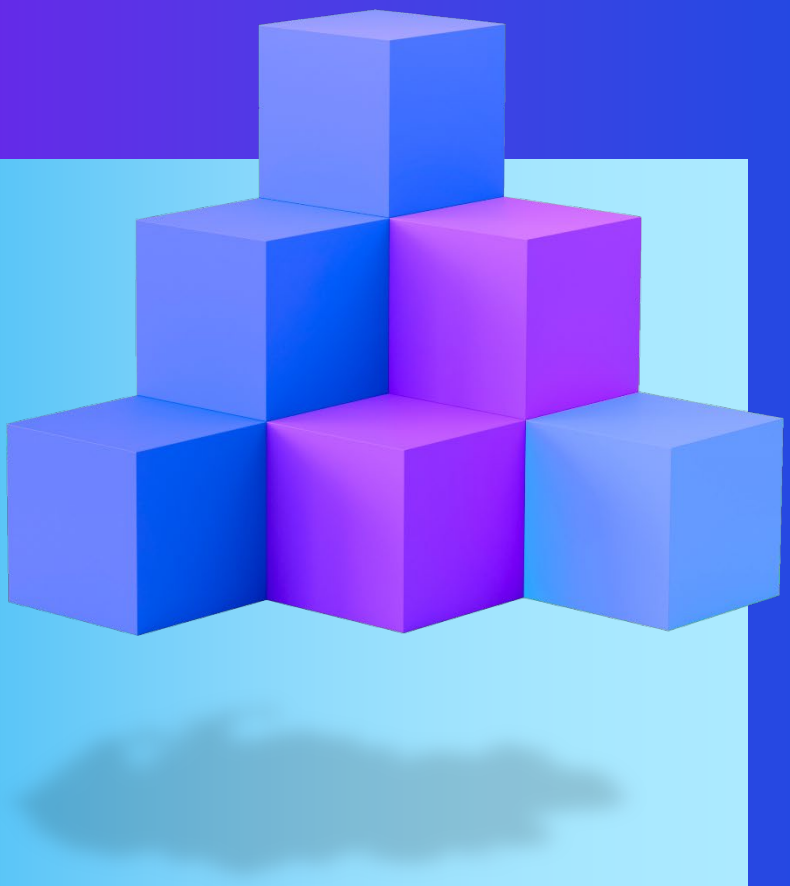


Architecting the Future

Leveraging Enterprise Architecture for Hybrid Cloud Success

Whilst Cloud technology is pivotal to digital transformation and digital optimisation, it has also fundamentally changed and impacted business and operating models for many organisations.

In the early days of cloud adoption, it was considered a superior infrastructure, enabling organisations to move away from the overhead of managing infrastructure for applications, with the option to go even further.

Businesses have moved well beyond that, and as the value of cloud is realised by businesses, so are the challenges. Cloud migration and adoption is no longer an infrastructure or IT project but a core strategic business decision.

According to KPMG's global tech report, 38% of interviewed businesses have leadership buy-in for emerging tech. Cloud is the key platform and enabler to address the challenges and opportunities like keeping ESG commitments, foster innovation using technologies like GenAI, enhance trust by better cyber security and management, unlocking the value from data.

According to the Flexera report on cloud adoption and migration strategies, 89% of organisations adopted a multi-cloud strategy, of which 73% adopted a hybrid cloud strategy. This trend is not expected to reverse where Hybrid Cloud presents itself as the best logical option which cannot be avoided. The questions which organisations need to answer is how best to optimise it's value.

What is Hybrid Cloud?

Hybrid cloud refers to a computing environment that combines elements of both public and private cloud solutions. This approach allows organisations to leverage the scalability and flexibility of public cloud services for non-sensitive workloads, while retaining control over critical data and applications through on-premises infrastructure or private cloud deployments. By strategically distributing workloads across different environments, organisations can optimise performance, security, and cost-efficiency according to their specific needs and regulatory requirements. Hybrid cloud offers businesses the flexibility to adapt to changing demands, maximise resource utilisation, and maintain a balance between the benefits of cloud computing and the control of traditional IT infrastructure.

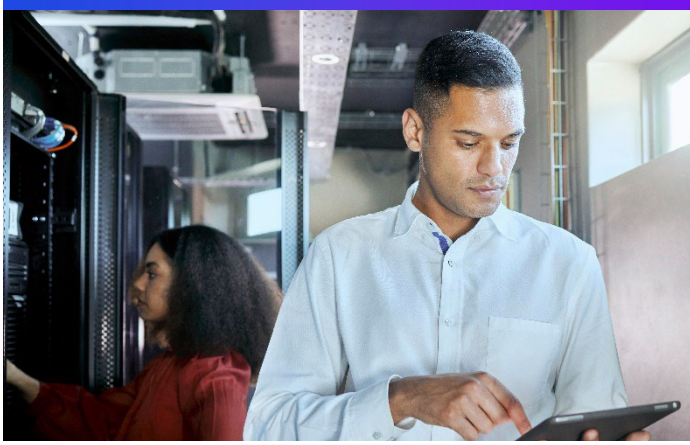
According to Statista, the market size is estimated to be $129.68 billion in 2024, expected to reach $352.28 billion by 2029, with a CAGR of 22.12% during the forecast period.

The global hybrid cloud market has experienced significant growth, with a value of $85 billion in 2021, projected to reach $262 billion by 2027.

According to Allied Market Research, the market size was valued at $36,138 million in 2017 and is forecasted to reach $171,926 million by 2025, growing at a CAGR of 21.7%.

Although businesses adopt Cloud with eagerness with intent to remain competitive, address their challenges and exploit opportunities, a lack of strategic, planned, and joint approach from business and technology teams results in increased costs and divergence from achieving expected outcomes – both from a business and technology perspective.

As per Flexera 2024 report, there has been an increase of 21% YoY spend with organisations spending $1 million dollar per month on Cloud. This can be a significant operational spend and can also be a barrier for businesses who want to exploit the superior technology capabilities which Cloud has to offer, especially in the public sector where the uptake of latest technologies is quite low.



What steps are necessary to decide if hybrid cloud is suitable for your company?

To determine if hybrid cloud is right for your company, several key steps are essential. By assessing workload diversity, data security needs and existing infrastructure, you can make informed decisions about hybrid cloud adoption. This brief guide outlines these crucial steps to aid in your decision-making process.

01

Evaluate Workload Requirements: Determine the types of workloads need to run. If business has a mix of workloads with varying performance, security, and compliance requirements, a hybrid cloud model could offer the flexibility to meet those diverse needs.

02

Assess Data Sensitivity and Compliance Needs: Consider whether your company deals with sensitive data or operates in regulated industries. If you require strict control over certain data or need to comply with industry regulations, a hybrid cloud approach allows you to keep sensitive data on-premises while leveraging the scalability of the cloud for other workloads.

03

Review Existing Infrastructure: Assess current IT infrastructure to identify any limitations or bottlenecks. If you have legacy systems that cannot be easily migrated to the cloud or if you've heavily invested in on-premises infrastructure, a hybrid cloud strategy allows you to leverage existing investments while integrating cloud services were beneficial.

Where Enterprise Architecture steps in?

Enterprise Architecture can play a pivotal role in bringing structure, planning, strategic thinking in the organisation going for a hybrid cloud approach. Putting a deliberate EA lens to plan and prioritise applications which need to be moved to Cloud will bring structure and address the business's own needs rather than following trends in the market or its competitors.

An EA function, with its holistic lens, can also do a maturity assessment of an organisation's readiness to move to a hybrid cloud model.

How can EA help?

Holistic View, Innovation and Strategic thinking:

- An enterprise architecture function can show stewardship in creating a culture of innovation and forward thinking. Facilitating innovation via latest technologies, which can eventually influence the technology roadmap of an organisation is an approach which the EA can facilitate.
- At its heart, EA is about systems thinking. From this vantage point of linking business objectives to technology and using the EA tools, governance, frameworks, and capabilities at its disposal it can really guide and engage an organisation's the leadership to make the best choice and optimise the cost of using cloud capabilities to achieve successful business outcomes.
- Where capabilities like Gen AI are premium capabilities on Cloud, EA function can provide that enterprise-wide analysis, utilise its knowledge of tech inventory and provide a cost-benefit view of using those premium capabilities in Cloud.
- Where can the value chain be enhanced to improve offerings to customers or citizens, can the latest capabilities in Cloud or technologies running on Cloud significantly add value to the business, is the cost of innovating with Gen AI (on Cloud) a profitable investment; is it worth running an enterprise application on Cloud. These decisions can be steered and guided by the unique vantage point of Enterprise Architecture.

Governance:

Governance is crucial.

- Developing, implementing, and embedding governance and best practice frameworks for architecture practices factoring in different aspects like security, ESG considerations, implementing and encouraging the adoption of EA tooling to build an enterprise-wide repository of business, data, application, and technology inventory can inform and further facilitate a suitable approach to hybrid cloud adoption. Facilitating a Centre of Excellence for cloud solutions.

Facilitate Cloud Architecture best practices:

Architecture plays a pivotal role in determining an organisation's readiness for hybrid cloud adoption and facilitating its successful implementation. An enterprise architecture can implement and ensure the adoption of good cloud architecture principles.

- **Scalability and Flexibility:** By architecting systems with modular components and standardised interfaces, organisations can easily scale resources up or down based on demand, leveraging the agility of cloud services while maintaining control over critical on-premises infrastructure.
- **Integration Capabilities**: A well-designed architecture enables smooth integration between on-premises systems and cloud environments. This includes implementing robust APIs, middleware, and integration frameworks that facilitate data exchange and interoperability between disparate systems.
- **Security and Compliance:** Architecture plays a crucial role in ensuring the security and compliance of hybrid cloud deployments. By implementing a defence-in-depth approach, incorporating encryption, access controls, and identity management mechanisms, organisations can mitigate security risks associated with hybrid environments.
- **Performance Optimisation:** Optimising performance across hybrid cloud environments requires careful architecture planning. This involves designing workload placement strategies, network architectures, and data caching mechanisms to minimise latency and maximise throughput.
- **Cost Management:** Effective architecture can help organisations manage costs associated with hybrid cloud adoption. By implementing resource allocation policies, workload optimisation strategies, and cost monitoring mechanisms, organisations can optimise resource utilisation and minimise cloud expenses.

How can KPMG help?

KPMG has a comprehensive toolkit and frameworks for end-to-end Cloud Transformation and Enterprise Architecture. Whether it is App Modernisation, moving to a Cloud Operating Model, a Connected Enterprise Approach – an iterative and connected approach to assist organisations with digital transformation including setting up an EA function, a FinOps capability framework which can work closely with EA function to optimise cloud adoption and consider cost effective options to moving applications to Cloud. It can advise on setting up architectural capabilities to enable a strategic perspective to Cloud adoption by utilising architectural frameworks. KPMG's Transformation Impact Modeller tool can demonstrate the value impact of moving to Cloud. It can generate actionable FinOps insights to bring financial accountability to Cloud.

KPMG's Perspective

Overall, a well-designed architecture serves as the foundation for successful hybrid cloud adoption, enabling organisations to leverage the benefits of cloud computing while maintaining the flexibility, control, and security of their on-premises infrastructure.

KPMG, a leader in cloud advisory services, can help your organisation navigate the complexities of hybrid cloud and make informed decisions about your cloud strategy. By carefully assessing your needs and goals, we'll guide you to determine if a hybrid cloud approach is right for you. Trust KPMG to simplify the process and provide clear direction for your cloud journey.

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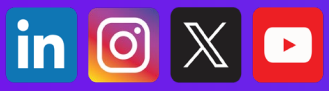

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